

STATUS

N E W S L E T T E R

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AUGUST • 1985

Printer Help File...1

CTRL + SHIFT - 1...1

CTRL - 1...1

Editor Help F

CONSOLE keys

CTRL+SHIFT -

File Help F

CONSOLE keys

CTRL+SHIFT

CTRL - 1.

Let's discuss PaperClip, the new word processor for the Atari. First, a macro feature...

One of my favorite features is double-column printing. There are only two word processors on the market that do double-column printing on the Atari. The first is AtariWriter, but it only works with a printer that does reverse line-feeds. There's only one printer on the market that does this that I can think of, the Atari 820 which hasn't been manufactured in a few years and doesn't have graphics.

Epsons, the Gemini's, and the ProWriter have reverse-linefeeds, and hence, double-column printing. The other word processors, the Writer's Tool, but this WP prints the end of a page and beeps for you to paper backwards and hit return (I think return). PaperClip does it all automatically. Specify your margins for the first column the second column and it will print each page out, line by line, in double columns, without asking you to back your paper up, and on any printer.

PaperClip tiny in index used 3 to in into spe to Single and double density is supported a smart-density check with MachDOS. You can

**PaperClip
MPP = Supra**

MC68000

Dr. KNOW

& more...

DOS's
Paperclip

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EDITOR	GENE RODRIGUEZ III	490-2951

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S.T.A.T.U.S. BBS

804-468-1096

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Editor's File

Well, (do you ever wonder how many of my columns start with "well"?) the STs are on the market, and therein lies my disappointment. Not with the computer itself mind you, but with the decision made down at the Tramiel Ranch to ship the little wonderment with LOGO as its standard language. Now don't get me wrong you LOGO fans (I can hear it now: "GET HIM! GET THE TURTLE-PHOBE!!!") I really don't have anything against that cute little language, but the consumer computer market is getting tougher all the time and handicapping your star entry in the 14th round with cement, turtle-shaped gloves is not the way to take the title! By not shipping the 520ST with BASIC (reported to be the computer equivalent of "RAMBO" in terms of popularity among hobbyists) ol' Jack has hobbled his horse before it even got out of the gate. ANYWAY, enough sports euphemisms, I won't be picking up MINE until I have the BASIC (disk, cartridge, ROM, whatever) in my hot little hands...

My, it was good to get that off my chest... now on to other things.

We'll have to give you people a vacation more often!!! During the August hiatus I was literally flooded with newsletter submissions (a situation I thought I'd never find myself in again) thanks to everyone who got up off their buffers and took the time to write! Special thanks to Scott Mathews (he's back!!), Dr. (whoever THAT is... I wonder if he knows James Baud?), and Henry Colonna (who graces us with his presence after an extended run at Dominic's) thanks guys, I needed the copy...

Yesterday, I was thumbing through my back issues of this newsletter in search of some obscure bit of information when I realized something... next month marks my first anniversary as the curator of this museum of electronic ingenuity!!!! I'VE got some things planned for that event, but I'm sort of hoping that YOU'LL have some input too. Is there anything you've seen that you particularly liked? Anything that you didn't? Any ideas for new articles or features? Let me know... in the immortal words of a certain big city mayor... "How'm I Doin'!!!"

ERIII

Telecomputing

By Doug Boynton

I'm going to hold off on the National Tour of Bulletin Board Systems for a month. Part of the reason is that I've been without my modem for a while. I'd like to tell you that story... and offer some tips on how to avoid the same thing happening to you.

Like many of you, I decided early on I needed some kind of protection on the incoming AC lines to the computer room... to protect against voltage surges, spikes, lightning-induced transients, and against Radio-Frequency (RF) interference.

Surges or spikes can be caused by the heat pump or air conditioning cycling... or by Virginia Power itself. Plug a voltmeter into an AC outlet, and watch it for a while. You'll see the voltage jump around when some of the big-juice items in your home kick on... or for no apparent reason at all.

RF interference is often caused by things like electric hair-dryers, power tools, or light-dimmers. This can be especially noticable if you use a television for a monitor, since the TV is designed to receive RF signals; the monitor is not.

If lightning strikes near a power line, it can sometimes cause a several-thousand volt spike, and that can do a lot of damage.

So much for the basics. Now, it stands to reason that if lightning can create a big power surge on the AC circuits, it can do the same on the phone lines, right? Right. This theory had crossed my mind before, although I'd never seen a surge protector for phone lines. So, on the evening of July 10th, as a big thunderstorm rolled through the area, I prepared to shut down the STATUS BBS for the duration of the storm. I'd gotten as far as partially closing down my personal system, when a large bolt of lightning struck near the house.

Well, just about everything in the computer room (that was still turned on) began going crazy. When the smoke cleared (almost literally), the damage amounted to two modems, a printer, and a pair of disk drives. Neither of the AC protectors indicated it had taken a hit. The surge must have come in on the telephone line.

I'll digress at this point to cover another (related) topic: your homeowner's or renter's insurance. In some (but not all) cases, these kinds of insurance will cover lightning hits on "home appliances". You need to check with your agent to see if it will cover your computer... and related equipment. Be sure to stress that you use your computer for hobby purposes... and not business, if that, is indeed, the case. If your policy does not cover computers, you can usually have yours added for a nominal charge. In my case, the damage amounted to nearly 700 dollars. (Replacement and repair cost... actual cost a year ago was well in excess of \$1500!)

Now to finish the story. The service department at Hayes says lightning-induced damage is the number-one reason for their modems needing repair. I have since done a little hunting through the ads in Computer Shopper, and have found a device that claims to protect against telephone line-transients. It's called "The Zapper", and it's available for \$19.95 (plus \$2.50 postage/handling) from an outfit called:

Data-Safe Products
P. O. Box 5523
Newport Beach, CA 92662

I do not endorse this company; heck, I haven't even gotten mine yet. But I offer it as something to think about if you're not around to unplug everything during a thunderstorm.

OTHER ITEMS: The STATUS BBS has purged all passwords not used since June 15. I cannot continue to maintain unused passwords; filespace just won't allow it. So, if you haven't called in a while, and the BBS doesn't recognize your password, answer "HELP" in place of your password. The BBS will step you through the application process, and I'll make every effort to have you re-validated as soon as possible.

If you're considering a purchase of an ATARI 520ST, the Atari SI6 on CompuServe has set aside an area for them. It's beginning to fill up with programs; the first ones being files to allow up/downloading from CIS. That makes sense, I guess.

There is growing (slowly) support for the KERMIT protocol for data file transfers. You might recall, we had the KERMIT program up on the BBS a couple of months ago. At that time, there were only a handful of BBS systems that supported it. That number (especially among non-Atari computers) is starting to grow. Keep an eye on this system for transferring files. I'm not sure XMODEM is anywhere near dead yet, though.

Finally, folks, it appears I may have been spitting into the wind last month with my column on computer courtesy. The 007 BBS debacle and the resulting messages that spread like a plague onto other boards is no way to show people what a wholesome, enjoyable, and entertaining hobby telecomputing can be. I cannot state my feelings about this in strong-enough terms. The attempt to "crash the boards" (an old hockey term, there!), and the resulting name-calling that took place in public messages were inexcusable! No one who spends the time and money

to put up a BBS deserves to have his or her system wrecked; and no one who calls a BBS expecting "G-rated" conduct deserves to read the kinds of language they're subjected to. Whew. Enough said about that, I guess.

I'm writing this in late July... I'm not sure when it will run, but given enough time for research, we'll press on with the National Tour next time. The times they are a'changin'...

NEXT TIME (I HOPE): THE NATIONAL TOUR

MPP Reorganizes as SUPRA Corp

By Gigi Bisson
ANTIC Assistant Editor

ANTIC On-Line News Service

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7/11- Antic got news that Microbits Peripheral Products was going into reorganization just as our August issue with the story about the company was about to go to press. Frankly, we had time to pull out the story although it might have made the issue a day or two late. But Antic publisher Jim Capparell made the decision to let the MPP article ride, for the following reasons:

First, our information made it seem likely that the widely used MPP product line would continue to be produced even if perhaps under a different corporate name.

Second, even if MPP did shut its doors permanently, the existing product inventory will be available in stores for a year or more. And MPP printer buffers, interfaces, memory expanders and modems are still among the best buys for the Atari.

Now that the dust has settled, here is what's happened to the Albany, Oregon, third-party Atari peripherals manufacturer:

Microbits Peripherals Products, Inc. was purchased by Supra Corp. which is owned by the 22-year-old co-owners of MPP, Alan Ackerman and John Wiley. Legally, MPP is out of business, but Supra says that the Microbits product line and even the brand name will live on. According to Supra Vice President Ackerman, MPP's bank, worried about the current computer industry slump, shut-down Microbits in

May and threatened to liquidate their assets. Ackerman says this has been a tough for some third-party Atari manufacturers. "No stores were ordering anything for the old Atari computers," he says. "They're all waiting for the 520ST to come out."

Supra Corp. managed to purchase the bank's share of MPP, essentially just the brand name. Microbits is now a subsidiary of Supra and the partners have swapped titles. Wiley, formerly Microbits V.P., is now President of Supra Corp. "I'm not sure exactly how much the MPP warranty will have to be changed," Ackerman says. "Some warranty work that used to be free will now have a handling charge."

It will also be harder for the users to get through to the Customer Service Department. "Be patient," Ackerman says, "There aren't as many phone lines as before." As of now, the MPP phone number remains (503) 967-9075, but Ackerman says Supra will be moving to another building this summer.

Supra Corp. still plans to release the new line of MPP products described in the August Antic. Supra is currently taking orders for the MPP 1200A plug-in 1200 baud modem and the Micronet that enables as many as eight Ataris to share printers and disk drives.

Anticipated for September is the MicroPort, an expansion port that will enable hobbyist and experimenters to build clocks, power supplies and other add-ons for their Ataris. The 10-megabyte \$800 hard disk is delayed, but still on the way, according to Ackerman.

Dealers and distribution networks will be most affected by the reorganization. "Hopefully the end user won't see noticable changes," says Ackerman.

The Doctor Knows: DOS

by Dr. Know

I was planning on an extensive article on DOS and various versions available, but Eric Clausen beat me to it with his article 'Everthing You Wanted to Know About Every DOS' published in July's Antic Magazine. What I shall do instead, is to give an explanation of DOS in general, and my opinions on various DOS versions.

First of all what is DOS? Well, it stands for Disk Operating System and is to your disk drive, what the OS (or Operating System) is to your computer. DOS is the controlling program for disk drives, and thru it, your computer can store and retrieve all kinds of information in various ways and formats. Your Atari has an OS that is able to manipulate bits of memory, interpret keyboard input, display characters and pictures on a screen, and even store and retrieve data with a cassette drive: but without DOS, it doesn't even realize a disk drive exists (much what to do with it).

When you turn on your computer, a small routine in the OS goes out to the disk drive and looks at the boot sectors (sectors 1-3) of the diskette for DO some routine it can load. If there is no DOS on that disk, then there had better be something it can load instead. If all is in order, the computer will load 'DOS.SYS', or the boot routine and then do one of four things.

First, if it found a boot routine, but no DOS.SYS, it will load the boot program and turn control over to it. Second, if it found DOS.SYS, it will load it, then look through the Directory for an 'AUTORUN.SYS' file. If one is found it is executed (RUN). Third, if no Autorun.Sys was found and a cartridge is present, it will release control to the cartridge. Fourth, if no cartridge is found, it will load DUP.SYS and turn control over to it. The above steps are not always the proper sequence, as some cartridges do not pass control to the disk boot routine, and some boot programs and autorun.sys' do not just run, but return to cartridge or disk for further loading, but that about covers all the various steps performed.

Now that the preliminaries have been covered, let us wrap it all up with my opinions of various DOS's. I either own, or have worked with the following DOS's:

1. Atari DOS 2.0s,3.0s,2.5 and some minor variations thereof.
2. Rana SmartDOS
3. MYDOS 3.09
4. SpartaDOS
5. OSA+ and DOSXL
6. TOPDOS
7. Rainbow DOS(?)

I am sure there are more, but the above is more than sufficient for me!

ATARI DOS. Version 2.0s is the original old favorite. It is a good, but rather plain, DOS. It has all the necessities, and is the most widely-used. Most of the programs you buy have 2.0s on the disk, and it has become a standard. It only works in regular single density (128 bytes/sector and 18 sectors/track). I only use it for those disks that have to use 2.0s. Version 3.0s was a big mistake! Atari tried to get a little more data onto each disk, and make it very user-friendly, but forgot a few important things like compatibility, flexibility, and everybody who had a single or single-double density only disk drive!! If you have this DOS, I recommend putting it away and not ever using it, or if you get a little desperate for a blank disk then use it... after you format it! Version 2.5s is Atari's apology for 3.0s, and fits the bill quite well! It does allow more data per diskette, but maintains compatibility for the most part, and is still fairly

user friendly and flexible. They even included a few routines to increase the compatibility and usefulness, especially for 130XE owners! This DOS will allow you to make use of their extra 64K of memory by setting it up as RAMDISK. I am in the process right now of converting my Picture and Music files over to DOS2.5 and would recommend the same to others. Generally, Micropainter, Koala and other types of picture files, along with AMS music files, only work in single density, so you can only put 707 sectors worth on each disk. With DOS 2.5s, you can increase that to 1024 sectors!

RANA SmartDOS is presently my favorite, but I may be a little biased, since I own two RANA 1000 disk drives! This DOS is friendly and compatible with DOS 2.0s, but it also includes a few extras. To begin with, it will access and convert between single, dual (or enhanced), and double densities, automatically. The only limitation in that respect is that you can't do a Whole Disk Copy between densities. Rana SmartDOS also has the following features:

- a. RAM resident DUP.SYS (if you want it)
- b. Reconfigure drives (if you forget to turn on a drive)
- c. Test and Copy Sectors
- d. Error identification and listing when copying.
- e. Query copying (Allowing you to Yea or Nay each file to copy)

I would recommend this DOS to all owners of any brand of drive to use at least in copying files and disks.

MYDOS I haven't worked with very much, but it will do most of the things Rana SmartDOS and Atari DOS's do, plus a lot more. The only drawback is cost and difficulty of use. This is one hairy and complex DOS! It allows for up to <8> disk drives, each configurable to different densities and formats. It also provides for multiple directories on each diskette. You can have several directories within directories! The idea is intriguing, but somewhat complex. I do not recommend this DOS to any but the most accomplished computerist.

SPARTADOS is the companion DOS to the US Doubler that converts the Atari 1050 to double density and provides for ultrahigh speed disk operations. It seems to be quite similar to MYDOS, except for little things like compatibility (without use of a non-resident utility) and the lack of a menu, leaving a Central Processor in its place which I feel is meant for the non-amateur computerist! These disadvantages are somewhat made up for by the inclusion of four different versions, one of which is very small in memory use (to use with the running of binary load programs/games) and another which allows for verry high speed input/output operations.

OSA+ and DOSXL, both from the same company, are both what you might consider a mixture of two other DOS's. Atari DOS2.0s and Spartados. They have a menu for

user-friendliness and a CP for flexibility and lesser memory usage. DOSXL does allow for various densities, but not automatically. The more common functions are resident, while less simple options must be loaded from the disk. This DOS is excellent for owners of the Atari XL computers due to the ability to have the most common functions in memory without affecting the basic program you are working on and with little loss of ram space. For me, without an XL, I never use it for copying, but I do occasionally use it while writing programs in basic that deal with disk input/output.

TOPDOS seems to be close to ideal for all Atarians except the fairly novice ones. It has the useful features/advantages of Rana SmartDOS, DOSXL and a few of the others. I have found very few things about it I don't like, but have not become familiar enough with it to use it extensively. This one warrants some consideration.

Rainbow DOS, although not a complete DOS, has a few excellent features that no other DOS has. It will display Koala and MicroPainter pictures, text files and character set files. Unfortunately, this DOS appears to be unfinished and doesn't provide for such basic DOS functions as deleting and renaming files, writing DOS and DUP.SYS to another disk, etc. I use it on my picture disks only.

I may have made a mistake or oversight somewhere and if so please correct me, but hopefully I have shed some light on DOS in general and been of some help in selecting a DOS. I, DR. KNOW, am willing to answer any questions on any Atari-related subject or to provide any help to STATUS members and 007 BBS users.

Scott's Books

Omni Online Database Directory

by Mike Edlehart & Owen Davies, Collier Books, NY 1983.

292 pages. \$10.95 paperback

Reviewed by Scott Mathews

The folks at Omni, a leading science magazine, have created the first truly comprehensive book on databases designed especially for home computerists. Omni Online Database Directory guides you through the uses and abuses of going online with all those telecommunication vendors.

"Imagine having information from 50 million books and 100 million periodicals and newspapers available at your fingertips," the cover reads. I

did. I also imagined exorbitant long distance phone bills, credit card charges, very late nights spent bleary eyed in front of my tv, and lots of migranes! But, being a newcomer to modems and telecommunications, I figured I could benefit from thumbing through this book.

And, guess what? I was right!

Omni Online Database Directory is essentially what it says it is... a directory. Using two basic criteria, the book presents thorough reviews of over 1,000 D/Bs in 50 different fields. Each entry contains access information, suppliers' addresses and telephone numbers, and (most importantly) base user comments. These comments make the directory worthwhile reading, for they incorporate incisive criticism gleaned by hands on researchers. If you are shopping around for the database just meant for you, then Omni Online Database Directory is an excellent place to begin.

Omni D/B Directory is divided into three parts that both beginners and advanced modem users will find comprehensible. As mentioned above, the directory itself comprises the bulk of the book. Introductory text chapters explain the basics of online life. Herein, D/Bs are defined, vendor prices are explained, and equipment and software are discussed. Following the directory listings, Compuserve and The Source are profiled. The appendices include listings and numbers of online service vendors.

Overall, Omni Online Database Directory is an informative resource book. I would note two possible weaknesses: 1) this text is two years old and may be somewhat outdated, and 2) a few D/Bs, like Plato, were not referenced. Yet, for the individual who is serious about selecting the best online service vendor, it's worth the price. (It would make a great hardcopy reference book for our S.T.A.U.S. library!)

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PaperClip

By Henry Colonna

Let's discuss PaperClip, the new Word Processor for the Atari. First of all, there is a macro feature that lets you store often-used words or phrases and have them type automatically with just a keystroke, like your name for a signature line or a whole paragraph, for instance. You have up to 2,000 characters in your macro file, and only a very large practical limit as to how many different macros this can encompass. The macros are activated with the <start> key plus any other key that you've named the macro as, such as l or a. When you hit the keys, the cursor jumps across the screen as you Atari types the macro automatically. It's fascinating to watch...the words and phrases don't 'pop' into place as with AtariWriter, but the cursor zips across the screen typing your macro at lightning speed. It also 'zips' with the search and replace options. One way to make this clearer is to mention the macro example that comes with PaperClip. By hitting about 6 keys, the macro example types a one page letter, since each keystroke types about one paragraph ALL AUTOMATICALLY!

PaperClip will do global searches automatically through your strings of files. For instance, some of us students have large papers that don't fit in our Atari's buffers. With AtariWriter or PaperClip there is a "chain" option that strings files together. However with AtariWriter if you do a global search, you have to manually do the search on the first file, save it, and read the second file in, search it, save it, etc., all the way through your entire file string. PaperClip will do a global search automatically through all your chained files. The program operates in ANTIC MODE 3, with a beautiful character set that includes true descenders, unlike the regular Atari character set. For instance the 'y' and 'g' actually dip one line lower than the rest of the characters. It's so pleasing and refreshing to the eyes and reflects the care and detail Steve Ahlstrom and Dan Moore put into PaperClip. The program is very FAST, especially when scrolling through text.

The printer control is far-encompassing, as it supports EVERY function of EVERY printer. (If you don't have a printer that it supports, you can create your own driver through a utility provided on the master disk!). You also have 4 "user-defined functions" for anything unusual you find yourself doing a lot of. The program will automatically generate a TABLE OF CONTENTS that looks great, see the end of this review for an example. A public domain utility generates an index automatically. If you don't have PaperClip read through the DOC file and be amazed anyway; see the bottom for a sample index.

There are TWO editing windows. You can read text into each window, and perform editing functions between them, like copying, moving, switching, you name it between the windows. In essence you can edit between two totally different files.

Ever wanted to use your printer like a typewriter for things like envelopes, where a word processor would actually get in the way? Just hit SHIFT CONTROL 2! You can set PaperClip to auto-save your text on anywhere from 100 to 32000 keystrokes. It alternately saves your file between 2 different files (PCTEMP.1 and PCTEMP.2) and NOT to the original file. Oh, if the phone rings, hit SHIFT-CONTROL-TAB and the file will auto-save while you race to talk to the Insurance Salesman.

You can add GRAPHICS from Koala Pad, Micropainter, B/Graph, AtariArtist in with your text! You have to run the picture file through a routine included on the master disk, then just put a command character with a filename, and you can draw stock charts or nude ladies with your favorite drawing program (this utility supports them all!) in your text! And of course you have mail-merge with Synfile+ or create your own if you don't have SynFile+.

Here is a small sample of a Table of Contents that PaperClip generated automatically. There's no limit to it's size, except maybe disk space because it writes the TOC to the disk as it prints your document. Another "little touch" is that PaperClip will print to a null device ("N:") so you don't have to go through the trouble of printing to your printer or your disk to generate the TOC.

```
Printer Help File...1
CTRL + SHIFT - ....1
CTRL - ....1
Editor Help File...2
CONSOLE keys:...2
CTRL+SHIFT - ....2
File Help File...2
CONSOLE keys:...2
CTRL+SHIFT - ....3
CTRL - ....3
```

ctrl-sh-?

Here is an example of an index that PaperClip generated automatically. This is a tiny index compared to what could be done. I indexed a file that spanned 2 disk files, and it used 360 out of 31,900 available bytes of memory

to index. Note that the program put everything into alphabetical order, too, not me! You just specify the words you want to be indexed. 'Nuff talk, here 'tis!

caps 2
console 2
ctrl 1, 2, 3
delete 2
editor 2
esc 1, 3
file 1, 2, 3
help 1, 2, 3
keys 2
option 2
printer 1, 2, 3
select 2
shift 1, 2, 3
space 2
start 1, 2

The numbers are the pages where the particular word is to be located. Have you ever hated doing columns of numbers with word processors? PaperClip does it easy. Besides having a very flexible print tab function, PaperClip supports math within your text file! The options you have are addition, subtraction, multiplication, division, subtotal and grand total in floating and decimal point math.

[EDITOR'S NOTE: Henry's review of PaperClip will continue next month with a discussion of double-column printing, customizing the program... Oh yeah, and some of the things that keep it from walking on water...]

STATUS Minutes

First Meeting, July 11, 1985

President Gene Rodriguez opened the meeting by welcoming the members and visitors. Status officers were then recognized.

Gene announced the latest information from Atari and other hardware and software manufacturers. At the June CES, Atari announced the introduction of a new model ST to be called the 260STD. This baby brother of the 520ST will have 256K of memory, the operating system in ROM and a 360K drive on board for the suggested price of \$499.

twelve

The Jersey Atari Users Group is soliciting contributions of PD Print Shop graphics files. These files will be compiled into a PD graphics file disk and offered for sale. Should you wish to contribute, contact Gene for details.

As you read this, you probably already know all August meetings were cancelled to give everyone a break. Hope your break was a pleasant one.

Dave Howell (Librarian) announced a problem with some files on the June "Dump of the Month". If you are having problems, see Dave for corrected copy.

Sysop Doug Boynton announced the STATUS BBS took a hit in the big storm and would be down for at least a week. For those who think surge protection is the answer, Doug says his AC protection worked great, the hit came in on the phone line.

Activities Director Buck Maddrey gave a review of the computer show at Pembroke Mall. The show was a tremendous success. There were 9 different computer users groups represented and every booth had many visitors. A "tip of the hat" to Buck for organizing the show and showing the public what STATUS is all about.

Under business, two motions were received, seconded and passed.

(1) A special add rate was approved for Best Electronics.

(2) STATUS business cards will be purchased and available to help promote the club.

2nd Meeting 25 July 1985

President Gene Rodriguez opened the meeting by welcoming all members and visitors. The latest information from Atari and other software and hardware manufacturers was presented.

Buck Maddrey announced Les Logan of Mini Floppy Services of Norfolk is scheduled to give a demonstration on disk drives at our second meeting in September. Buck Maddrey presented the treasury report and the meeting was adjourned to lab sessions and the usual gabfest.

♦♦ Dick Litchfield♦♦

Motorola's MC68000

by SIG-ATARI's Tim Barr

[Attention all you hackers out there! Are you anxious to get the new SI Line of Atari Computers? Here's a little background info about the heart and soul of these new computers. This article was taken from the SIG Atari section of Compuserve.]

The MC68000 is a 16-bit MPU with 17 general purpose 32-bit registers, a 32-bit program counter and a 16-bit status register. The first eight GP registers (D0-D7) are used as data registers. The next seven GP registers (A0-A6) and the system stack pointers can be utilized as address registers and pointers for software use. The data registers can be used for different data sizes. These sizes are: BYTE (8-bit), WORD (16-bit), and LONG WORD (32-bit) operations. The MPU has a 24-bit address bus (actually it is 23-bit address line and a HI BYTE and LOW BYTE select lines which gives you 8 megawords or 16 megabytes of memory) and a 16-bit data bus.

Five basic data types are supported by the instruction set. These data types are: BITS, BCD DIGITS (4-bits), BYTES (8-bits), WORDS (16-bits), and LONG WORDS (32-bits). The MPU has 14 address modes of six basic types: REGISTER DIRECT, REGISTER INDIRECT, ABSOLUTE, PROGRAM COUNTER RELATIVE, IMMEDIATE, AND IMPLIED. The surprising thing about the 68000 is that it only has 56 instruction types and a total of only 88 actual instructions. The actual 16-bit OP-CODE that the syst uses is a combination of an instruction and an addressing mode, GP register number, an OP-MODE, instruction specific data, or any combination of the four (Instruction specific data is such information as shift direction, branch conditions, operation sizes, etc.). This provides you with over 1000 actual instructions, but keeps the total number of instructions small.

The MPU can perform add and subtract functions on BCD digits in groups of two digits. It can also multiply and divide binary numbers in these formats: 32-bit / 16-bit => 32-bit and 16-bit * 16-bit => 32-bit. The signed divide is the slowest instruction to execute on the 68000. It takes 170 clock cycles or 21.25 micrsec. at a clock speed of 8MHZ. This means that you could divide any 32-bit number in memory by any 16-bit number in memory over 47,000 times in ONE SECOND!!

I hope that this has given you a general idea of the power of the processor that the new Ataris will be using. If you are interested in more information, I would like to suggest a couple of books that are available. The first is called "68000 PRINCIPLES AND PROGRAMMING" by Leo Scanlon. You should be able to order this book through the Howard Sams section of Compuserve (60 SAM). The second book I would like to recommend is "M68000 PROGRAMMERS REFERENCE MANUAL" available from:

Motorola Semiconductor Products Inc.
P.O. BOX 20912
Phoenix, AZ 85036

Ask for document # M68000UM(AD4)



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2600 (VCS) PRESCHOOL GAME PACKAGE.....\$15.00

DE RE ATARI MANUAL (APX BINDER VER.).....\$12.00

ATARI 400/800 TECH REFERENCE NOTES.....\$25.00

DOS II SOURCE LISTING.....\$10.00

400 48K UPGRADE KIT.....\$15.00 OR 5+ \$13.00 ea

4164 RAM CHIPS.....\$1.00 ea OR 8+ .90 ea

BEST ELECTRONICS

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San Jose, CA 95126

(408) 243-6950

President's Column

First, I would like to take this opportunity to congratulate the Editor of the STATUS Newsletter for his most recent achievement to wit his graduation from Old Dominion University. Good Luck. Gene III, I'm proud of you...

And now for some News...As you remember about a month ago the rumors were running rampant as to the status of MPP Computer Products, the word was that they had gone out of business. A lot of folks began to wonder what would happen to those products they had purchased, where would they get support etc... Things were sort of quiet... Antic Magazine printed an article on the glorifying success of the MPP founders... things were again looking up, ah... but let's not forget these articles are sometimes written months in advance, well the word is out again that the MPP brand name has been rescued by SUPRA Corp., who promise to continue providing third party support for US ATARIANS (Read the article from WUN) with such products as: MPP Hard Disk, MPP Hard Disk Adapter, the MPP 1200AT, the MPP 1200ST (these are modems), the OMEGA Terminal for both the 8-bit and 16-bit computers... Once again we are hoping

that with our support SUPRA CORP. will provide us with third party support and really bring out the best out of our computers...

Here are some numbers for the New SUPRA CORP:

SUPRA CORP.

1133 Commercial Way

Albany, OR 97321

Main Desk: (503)-967-9075 (8-5 daily, PST)

Technical Support: (503)-967-9081 (9-4 Monday/Thursday, PST)

Tech Support BBS: (503)-926-1980

(on-line early August, 24 hours)

We are planning for a STATUS picnic and SWAP day, time and date and other details will be passed at the first meeting in September if you can't attend this meeting give me a call for the details...

HOT NEWS....

Games & Gadgets at Lynnhaven Mall has the 520ST with color monitor on display, and it seems that most of us have been there and tried it out... It's awesome, and it's LOGO for the time being, I understand that they are working on a BASIC ROM, it seems that for an outfit that once broke tradition by providing a low-end computer with a BASIC language cartridge included, now comes out with a real outstanding computer, with LOGO. this will require you to learn yet another language, if you have'nt learned LOGO yet, start soon, and don't forget "C", if you want to do some real serious programming. We will try to carry some reprints of LOGO articles. The M.A.C.E. Journal has been carrying some interesting articles on LOGO, and copies of this fine publication are available from our Librarian Dave Howell.

Newsletter Exchange Program... We have four new contacts: NUGGET from the NORWICH USER GROUP, in Norwich England, A-Bug..The Newsletter of the ATARI BOSTON USERS GROUP, and H.A.C.E., The Houston Atari Computer Enthusiasts. We also received the San Leandro Computer Club '85 Special Edition with RAMTALKER as one of their feature articles. Congratulations are in order for Randy Holmes... Keep up the good work...

Hope you all are having a fine summer...Until next time, Adios. And hey!!!... keep on hacking...



S.T.A.T.U.S.

Opinions expressed in this publication are those of the individual authors and do not necessarily express or reflect the opinions of the Southside Tidewater Atari Technical Users Society. Some of the material contained herein may have been taken from bulletin boards and newsletters of other groups and should not necessarily be construed as fact.

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S.T.A.T.U.S.
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MEETINGS: S.T.A.T.U.S. meetings are held on the first and third Thursdays of each month at the Baylake Pines Private School, 2204 Treasure Island Dr., in Virginia Beach, at 6:30 p.m. All interested parties are welcome to attend.

NEWSLETTER ARTICLES:

Submitted articles are preferred on disk text files, but will be greatfully accepted on hard copy (including handwriting) if you do not have a disc drive. If you have a modem, you can upload your articles to the Editor by calling 499-6021. Articles may be submitted anytime, but will probably not make that month's newsletter if submitted less than one week before the regular meeting date.

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